National Park Service
U.S. Department of the Interior

Natural Resource Program Center
Air Resources Division

On The Air: Podcast Transcript

For almost a century we have come to the national parks to escape the pressures of daily life, enjoy fresh air, and allow the natural world to heal our souls. National parks are part of our natural and cultural heritage, created for and owned by all Americans. Our national parks are preserves of naturally functioning ecosystems, protected by law from human-generated impacts and pollution. However, conditions in the parks today give cause for concern. Increasing population and the pressures of an industrial world are threatening park resources in increasingly complex ways and accelerating ecosystem change.

The idea that parks are not pristine may come as a surprise to many. There are no protective barriers surrounding our national parks. Air is a resource we cannot see or touch. It crosses city, state, national….and yes, even national park boundaries.

Air pollution control programs are improving air quality through out the country. However, air pollution levels remain high in some areas including our national parks. One in three units of our National Park System has air pollution levels that exceed national health standards. In fact, at a few parks it is not unusual to see signs warning visitors that park air is unhealthy.

Every year over 280 million people visit our national parks. Unfortunately, many aren't able to see the spectacular vistas they expect. During much of the year, air pollution creates haze that partially obscures views at most parks around the country. Even at night the inky black skies and brilliant stars once visible from parks can be obscured by haze. Data, from the National Park Service monitoring program, show that visibility in eastern parks has reduced from 90 miles on unpolluted days to between 15 and 20 miles on an average day. In western parks, visibility has decreased from 140 miles to between 35 and 90 miles on an average day.

Reduced visibility is often the first indicator that bigger air quality problems are brewing. In parks, critical changes are occurring in the air, on the ground, and in surface waters, upsetting the balance of plant and animal life. At Great Smoky Mountains National Park, 30 species of plants show damage from ozone pollution, including 90 percent of black cherry trees. High levels of mercury are found in endangered Indiana bat populations at Mammoth Cave National Park. At Rocky Mountain National Park, nitrogen from air pollution is linked to changes in park alpine ecosystems.

Air pollution is currently recognized as a significant threat to our national parks. The major conventional pollutants that impact parks today are sulfur, nitrogen, ozone, carbon, and mercury. Power plants, industrial manufacturing processes, food production, and mobile sources are the most common sources of these pollutants. Greenhouse gases are now also recognized as air pollutants, and efforts to understand and adapt to the effects of climate change are underway.

The National Park Service is addressing conventional air pollution in parks by conducting research and participating in national monitoring networks. Research efforts in parks currently study how sulfur and nitrogen contribute to reduced visibility and the acidification and fertilization of natural ecosystems; how the accumulation and impacts of toxic contaminants like mercury might harm some species even at low levels; and identify the sources of pollutants that are affecting the parks. Monitoring is conducted to better understand air pollution transport, transformation, concentrations, and impacts on natural and scenic resources.

The National Park Service air quality database now spans nearly 30 years and has provided information about many air quality conditions and trends in parks. This Information helps us to understand and improve air quality. Quantitative data supports more stringent air quality laws and pollution control programs that protect parks and new programs are being implemented that will improve air quality conditions in the parks. Increased knowledge stimulates conservation efforts, leading parks to reduce their own contributions to air pollution by using cleaner or renewable fuels and providing mass transit options.

The need for science and research in the parks has never been greater than it is today. Long-term, high quality quantitative information allows the National Park Service to take a strong leadership role in protecting the air resources in our national parks.